

AMENDMENTS TO THE CLAIMS

1-4. (Canceled)

5. (Currently Amended) A method for checking the existence of an optical disk using a ~~focusing~~ focus error signal, comprising the steps of:

(a) ~~detecting~~ receiving a focus error signal ~~which is lower than a predetermined reference level during a predetermined period;~~

(b) ~~sampling said~~ the received focus error signal at constant intervals ~~and calculating the sampled values; and~~

(c) summing the values of the sampled focus error signal, which are less than a first predetermined reference level;

(d) determining whether the summed value is greater than a predetermined judging level; and

(e) judging the existence of an optical disk ~~depending upon~~ based on the calculated value result in the determining step (d).

6. (Currently Amended) The method set forth in claim 5, wherein the ~~detecting~~ step (a) ~~(b)~~ is started when the value of the focus error signal exceeds a ~~predefined~~ the first predetermined reference level, while moving an optical pickup.

7. (Currently Amended) The method set forth in claim 6, wherein the ~~predefined~~ predetermined reference level includes first and second ~~predefined~~ predetermined reference levels, where the first ~~predefined~~ predetermined reference level is for starting said ~~detecting~~ sampling step (a) (b) and the second ~~predefined~~ predetermined reference level is for ~~detecting~~ sampling the focus error signal.

8. (Currently Amended) The method set forth in claim 5, wherein in said judging step (e) (e), an optical disk is judged to exist if the ~~calculated~~ summed value of the focus error signal is greater than a ~~predefined~~ value the predetermined judging level.

9-11. (Canceled)

12. (Currently Amended) The method set forth in claim 7, wherein the first ~~predefined~~ predetermined reference level is higher than the second ~~predefined~~ predetermined reference level.

13. (Canceled)

14. (Currently Amended) The method set forth in claim 5, wherein said step (a) (b) is ~~performed~~ performed if a focus OK signal is asserted.

15. (Previously Presented) The method set forth in claim 14, wherein the focus OK signal is asserted based on a result of ~~the~~ comparing a beam strength signal and a reference signal.

16-18. (Canceled)

19. (New) The method set forth in claim 5, wherein a focus error value is added to the summed value if the error value is greater than the predetermined reference level.

20. (New) An apparatus for checking the existence of an optical disk using a focus error signal, comprising:

an optical pickup for outputting the focus error signal;

an analog-to-digital converter for sampling the focus error signal at constant intervals;

a microcomputer for determining the existence of the optical disk by summing the values of the sampled focus error signal, which are less than a first

predetermined reference level, and determining whether the summed value is greater than a predetermined judging level.

21. (New) The apparatus set forth in claim 20, wherein the optical disk is judged to exist if the summed value of the focus error signal is greater than the predetermined judging level.

22. (New) The apparatus set forth in claim 20, wherein the analog-to-digital converting starts to sample the focus error signal ~~performed~~ performed if a focus OK signal is asserted.

23. (New) The apparatus set forth in claim 22, wherein the focus OK signal is asserted based on a result of comparing a beam strength signal and a reference signal.

24. (New) The method set forth in claim 20, wherein a focus error value is added to the summed value if the error value is greater than the predetermined reference level.
